

(1) wherein any P_2O_5 former is added in an amount such that:

(a) $\{SiO_2\} + (\{P_2O_5\} - (58 + 0.5(\{MgO\} - 10))) > -2.4 \text{ wt\%}$ if $\{MgO\} > 10 \text{ wt\%}$; and

(b) $\{SiO_2\} + (\{P_2O_5\} - 58) > -2.4 \text{ wt\%}$ if $\{MgO\} \leq 10$; and optionally

(2) wherein any B_2O_3 former is added in an amount such that $\{B_2O_3\}$ is in the range from 0 to 4 wt%;

wherein $\{SiO_2\}$, $\{P_2O_5\}$, $\{MgO\}$, and $\{B_2O_3\}$ are the concentrations of SiO_2 , P_2O_5 , MgO , and B_2O_3 , respectively, in the fiber in wt%;

thereby producing inorganic fibers having a shrinkage of less than 3.5% when

exposed to a temperature of 1000 °C for 24 hours and a shrinkage of less than 3.5%

when exposed to a temperature of 800 °C for 24 hours.

14. (Amended) A saline soluble inorganic fiber having a shrinkage of less than 3.5% when exposed to a temperature of 1000 °C for 24 hours and having a shrinkage of less than 3.5% when exposed to a temperature of 800 °C for 24 hours, comprising SiO_2 , CaO , MgO , and one or both of P_2O_5 and B_2O_3 in concentrations falling within the ranges:

$\{SiO_2\}$	44.34 wt% to 62.48 wt%;
$\{CaO\}$	20.36 wt% to 39.4 wt%;
$\{MgO\}$	0.62 wt% to 21.16 wt%;
$\{P_2O_5\}$	0 wt% to 12.01 wt%;
$\{B_2O_3\}$	0 wt% to 3.54 wt%;

wherein $\{SiO_2\}$, $\{CaO\}$, $\{MgO\}$, $\{P_2O_5\}$, and $\{B_2O_3\}$ are the concentrations of SiO_2 , CaO , MgO , P_2O_5 , and B_2O_3 , respectively, in the fiber, and wherein

(a) $\{SiO_2\} + (\{P_2O_5\} - (58 + 0.5(\{MgO\} - 10))) > -2.4 \text{ wt\%}$ if $\{MgO\} > 10 \text{ wt\%}$; and

(b) $\{SiO_2\} + (\{P_2O_5\} - 58) > -2.4 \text{ wt\%}$ if $\{MgO\} \leq 10$.